

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 11, 16-18, and 20-30 are pending. Claims 1-10, 12-15, and 19 are canceled.

Claims 11, 16, and 18 are amended. Support for the amendments to Claims 11 and 18 can be found in now-canceled dependent Claims 14 and 15 and in Fig. 2, for example. Support for the amendment to Claim 16 is self-evident. Claims 29 and 30 are newly added. Support for newly added Claims 29 and 30 can be found in Fig. 9, for example. No new matter is added.

In the outstanding Office Action, Claims 11-13, 16-18, 21, 22, 24-26, and 28 were rejected under 35 U.S.C. § 102(b) as anticipated by Muirhead (U.S. Patent No. 6,661,339, herein "Muirhead"). Claims 14 and 15 were rejected under 35 U.S.C. § 103(a) as obvious over Muirhead in view of Ries et al. (U.S. Patent Pub. 2003/0124281, herein "Ries"). Claim 20 was rejected under 35 U.S.C. § 103(a) as obvious over Muirhead in view of Abare et al. (U.S. Patent No. 6,627,016, herein "Abare"). Claims 23 and 27 were rejected under 35 U.S.C. § 103(a) as obvious over Muirhead in view of Goto et al. (U.S. Patent Pub. 2002/0017527, herein "Goto").

Regarding the rejection of Claims 11-13, 16-18, 21, 22, 24-26, and 28 as anticipated by Muirhead, that rejection is respectfully traversed by the present response.

Amended independent Claim 11 recites, in part:

a component including a portion with a conical surface profile, the component including a tubular shape;
style="padding-left: 40px;">a tank with an opening, a perimeter of which opening includes a conical surface profile; and
style="padding-left: 40px;">a welded area between at least one portion of the conical surface of the perimeter of the opening in the tank and at least one portion of the conical surface of the component,
style="padding-left: 40px;">wherein the perimeter of the opening of the tank is a deformed portion of a wall of the tank,
style="padding-left: 40px;">wherein the component and the tank are molded in one or more molds including impressions corresponding to the conical surfaces,

wherein the tank and component each include a multilayer structure and, along the entire surface where the component is fastened to the tank, a number of superposed layers is equal to a sum of a number of layers in the component and a number of layers in the tank, and

wherein the multilayer structure includes at least two layers of high-density polyethylene (HDPE) between which a layer comprising an ethylene/vinyl alcohol copolymer (EVOH) is inserted.

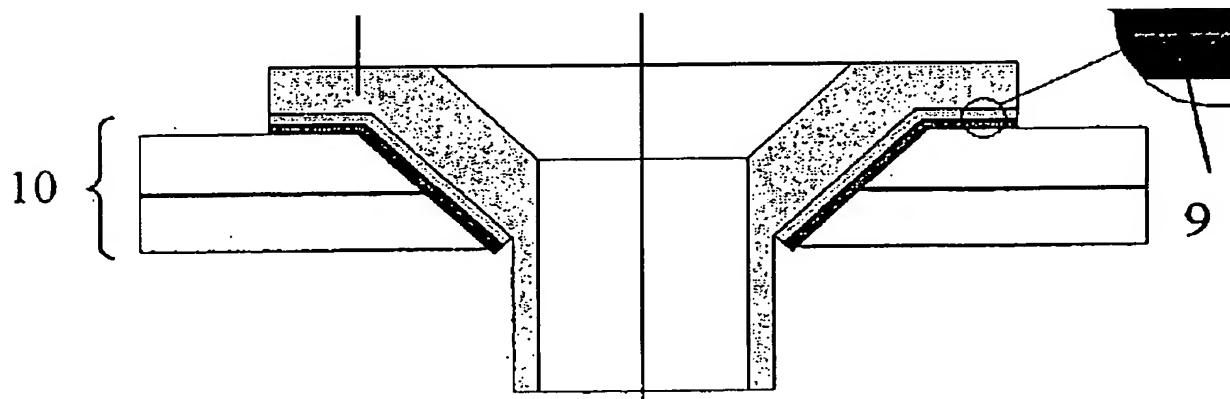
Thus, Claim 11 has been amended to recite all of the features of now-canceled dependent Claims 14 and 15 with the exception that the term "at a point" in the language of Claim 14 has been replaced with "along the entire surface" in order to clarify the relationship of the multilayer structure in both the tank and the recited component. Additionally, the term "second component" is replaced with "tank" where appropriate.

One benefit of the arrangement recited in amended independent Claims 11 and 18 is that the weld connection between the component and the tank can be between the two outermost layers, i.e., the layers that abut each other, of the component and the tank, and therefore, compatible materials for welding make up the contact portion between the component and the tank rather than possibly incompatible materials such as those that may be disposed in intermediate or innermost layers of the tank or component. As the tank and component are molded items, the outermost layer of both the tank and the component may remain intact, and therefore, as long as these two layers are compatible for welding, the component may be welded to the tank. This benefit is typically not provided by machining away a portion of the tank or component, which, in some cases, would expose an inner or intermediate layer that may not be compatible for welding to the opposing surface.

One benefit of providing the conical shape to both the tank and the component is to provide a stronger weld connection based on the fact that the component resists bending moments better and has an increased area of contact with the tank.

On pages 5 and 6, the outstanding Office Action acknowledges in addressing Claim 14 that Muirhead does not disclose a component with a multilayer structure and that, at a point where the component is fastened to the tank, a number of superposed layers is equal to a sum of a number of layers of the component and the tank. Accordingly, amended independent Claim 11 and amended independent Claim 18, which also recites the above-noted features, patentably distinguish over Muirhead.

The outstanding Office Action relies on Ries for the feature of a component with a multilayer structure and, at a point where the component is fastened to the tank, a number of superposed layers is equal to a sum of a number of layers in the component and the tank.¹ However, Applicants respectfully note that Ries, along the surface of the attachment fixed to the fuel tank (10), allows the ends of the various layers making up the wall of the tank (10) to touch the "attachment." In other words, as shown in Fig. 2, the various layers forming the tank (10) all contact the attachment along their end surfaces, and therefore, in contrast to the features recited in amended independent Claim 11 and amended independent Claim 18, neither of Muirhead or Ries discloses a tank and a component that each include a multilayer structure, wherein, along the entire surface where the component is fastened to the tank, a number of superposed layers is equal to a sum of layers in the component and the tank.



¹ Outstanding Office Action, page 6.

As shown in Fig. 2 of Ries above, at the narrowest part of the conical section formed in the tank (10), only a **single** layer of the tank (10) remains, and therefore, a sum of the layers of the tank and layers of the component is greater than the number of layers at this point of the connection between the tank (10) and the attachment.

Accordingly, as neither of Muirhead and Ries provides that "along the entire surface where the component is fastened to the tank, a number of superposed layers is equal to a sum of a number of layers in the component and a number of layers in the tank," amended independent Claim 11 patentably distinguishes over any reasonable combination of these references.

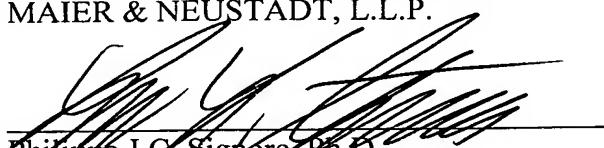
Applicants respectfully submit that amended independent Claim 11 and amended independent Claim 18 patentably distinguish over any reasonable combination of Muirhead and Ries for at least the reasons discussed above.

None of the remaining references remedies the deficiencies discussed above regarding the combination of Muirhead and Ries. Accordingly, Applicants respectfully submit that amended independent Claims 11 and 18 and the claims depending therefrom patentably distinguish over any proper combination of the cited references.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.



Philippe J.C. Signore, Ph.D.
Attorney of Record
Registration No. 43,922

Lee Stepina
Registration No. 56,837

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/09)

RELATED CASE STATUS UPDATE

Application No: 10/591,293

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Application No	Reexam Control No	PTO Action Description	PTO Mail Date	Applicant Action Description	Date Filed
10/498,357		Notice of Allowance	Feb-24-2010	Issue Fee	May-24-2010
10/498,357		Notice of Allowance	Feb-24-2010	Pub Fee Due	May-24-2010